iCon

- iSense
- iSmooth
- iDirect
- iLink

isotera™

contactless power for LED lighting

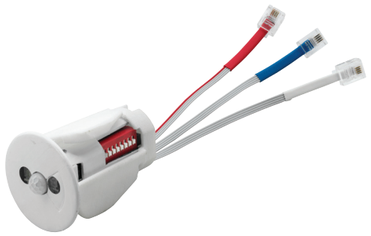
Suite B Oakpark Business Centre, Alington Road, St Neots, Cambridgeshire, PE19 6WA. United Kingdom.
t: +44 (0)1480 476939 | e: info@isotera.com | w: **www.isotera.com**

iCon

iSense

Multi-functional sensor that integrates PIR, light sensor and controller functions in a compact unit.

iCon — **iSense** — iSmooth — iDirect — iLink



The iSense sensor integrates PIR, light sensor and controller functions in a compact unit for use with the Isotera LED lighting HFAC power distribution system. It provides:

- PIR Movement sensor
- Daylight detection
- Light Level Maintenance and control
- Dimming control of iCouplers/luminaires.
- On/off control of iCouplers/luminaires
- Presence / Absence detection (Auto-ON/Auto-OFF, Manual-ON/Auto-OFF Modes)
- Provides Interface for multiple switch/dimmers (See SIM data sheet)
- Provides control of the Power Hub (PH) 'user [control] port' (See Power Hub data sheet)

Connectors

- **BLUE connector** – Provides control of a zone. It writes dimming levels on the 0-10V control line and reads commands from the Command line. There can only be one 'BLUE Plug' device connected to a zone.
- **RED connector** - Reads the 0-10V Control line and writes commands on the Command line. There can be multiple RED Plug devices connected to a zone.
- **WHITE connector** – Sets up a special zone that writes to separate arrangement of command and control lines. In this case the control line can be used only to signal the ON/OFF states (auxiliary OFF) and does not provide 0-10V dimming drive. The command line generates a coded ON/OFF signal intended for use in 'soft' on/off control of the Power Hub (see definition of Port C0 for output definition)

Benefits

- Plug and Play (Check if we can use these words)
- No mains wiring
- Flush fit, less than 60 mm deep for shallow ceiling voids
- Single RJ11 cable provides power, signalling and control system
- Same sensor can act as master and slave
- Many user settings (See user manual)
- Same sensor can act as master and/or slave
- Easy to insert and remove without damage to ceiling tiles
- Light weight

contactless power for LED lighting isotera™

Suite B Oakpark Business Centre, Alington Road, St Neots, Cambridgeshire, PE19 6WA. United Kingdom.
t: +44 (0)1480 476939 | e: info@isotera.com | w: **www.isotera.com**

Copyright Isotera 2013. All rights reserved

ISS-UK-100913-1

Indicators

- RED LED indicates PIR activity
- GREEN LED used in set-up and commissioning

Sessions

- ??????
- don't know what this means

Controls

- 8 dip switches – many user configuration settings
- 1 to 30 minutes rotary Exit Timer with automatic 5 minute session extend timer
- 5 to 1000 Lux level rotary setting
- Blue, red and white plug provide different system control and functionality

Pir Detection Area

Insert graphic (we don't have a suitable graphic for publication - ask Panasonic)

Light level setting

This rotary control is used to prevent PIR triggering if there is sufficient ambient light or to set the target level for Light Level Maintenance. It can be disabled entirely if required.

Exit Time Setting

This rotary control is used to set the value of a re-triggerable timer in the (approximate) range of 1 to 30 minutes. It is re-triggered by PIR or switch activity and can be set to 'continuous' if required.

There is also an unique Session Extension Timer feature whereby luminaire outputs are dimmed to a low level at the end of the Exit Time period for a further 5 minute period during which the Exit Timer may be re-triggered by PIR or switch activity. This usefully signals the imminent cessation of luminaire output and is especially useful in the Manual-ON/Auto-OFF mode.

Technical Data

Power
Consumption - 50mW Max.
Input voltage – 5.5 to 7V

Materials:
All materials are fire retardant, low smoke and fume
Total weight:- Approximately 40gms

Environment
Normal Operating Temperature Range: -10°C to +40°C
Nominal Operating Temperature: 20°C
Storage: -18°C to +60°C
Cooling: By natural convection.
Humidity: 90% RH non-condensing
Installation Category: The device operates to IP20.

Suite B Oakpark Business Centre, Alington Road, St Neots, Cambridgeshire, PE19 6WA. United Kingdom.
t: +44 (0)1480 476939 | e: info@isotera.com | w: **www.isotera.com**

Copyright Isotera 2013. All rights reserved

iSense Multi-functional sensor that integrates PIR, light sensor and controller functions in a compact unit.

Configuration Switches

No	Switch Name	Function
1	Manual-On/Auto OFF Enable (Presence/Absence selection)	If the switch is in the 'on' position, the Manual-On/Auto OFF mode is activated else Auto-ON/Auto-OFF is activated
2	Light Level Maintenance	Switch 'on' to enable the Light Level Maintenance function whereby the unit will attempt to dim luminaire output to maintain the light level preset by the user.
3	Orientation-Night Light	Switch 'on' to enable the orientation mode whereby dimming below a preset level is inhibited; Luminaire ON/OFF control is still available
4	Inhibit manual dimming	Switch 'on' to inhibit manual dimming from switch/dimmers. Use this to prevent users from overriding or cancelling preset dimming levels - in Light Level Maintenance for example.
5	Enable RED Plug response	Switch 'on' to enable a unique 'slave' mode that allows some of the control and command function of one zone to be linked in.
6	Enable auxiliary OFF	If this switch is 'on' , the 'Auxiliary OFF' signal is active on the WHITE plug. Use this to generate an additional controlled zone that has simple ON/OFF functionality in response to PIR or switch activity.
7	Inhibit External PIR response	Switch 'on' to ignore external PIR sensors. The default mode is to allow input from the PIR sensors of other connected iSense devices. (PIR Slave mode) It is especially useful to prevent Slave PIR response from a RED Plug enabled iSensor.
8	Inhibit Internal PIR response	Switch 'on' ignore the internal PIR sensor. Use this to split PIR and Light Level control of a zone or zones over several iSensors for example. Note that this does not prevent PIR signals being available externally.

Part Numbers

Isotera Part Number	Description
Int-Blue	Switch Interface Blue
Int-Red	Switch Interface Red
3mtr RJ11	iLink 3mtr Cable
2 way 50mm	2 way T-piece with 50mm lead
3 way 50mm	3 way T-piece with 50mm lead
Extender	Inverted coupler

Compliance

(The integrity of these references to be checked for before publication)

EN 61547:1996, Equipment for general lighting purposes – EMC immunity requirements

EN 55015:2006 Limits and methods of measurement of radio disturbance characteristics of electrical lighting and similar equipment.

2004/108/EC Electromagnetic Compatibility Directive

2006/95/EC Low Voltage Equipment Directive

2002/95/EC RoHS

2002/96/EC WEEE

Fixing

Push in self retaining
Ceiling hole diameter:- 40mm
Minimum ceiling panel depth:- 18mm
(adapter collar is available for thinner panels)

The specifications contained herein are believed to be correct at the time of publication and are subject to change without notice.

ISS-UK-100913-1

contactless power for LED lighting isotera™